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Development of Web-Based Basic French Courseware (EASIFRENCH) by Using Content Management System

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Abstract

This research was conducted to develop and evaluate a prototype of Web-based Basic French courseware (EASIFRENCH) for Basic French subject at diploma level. It also engaged of web applications that offer various facilities in providing interactive, effective and innovative learning environment. This research also evaluates some features of Basic French courseware such as pedagogical approach, learning strategies, theories in education and effectiveness usage test in term of achievement towards the application of Basic French courseware in teaching and learning compared to conventional way. The research methodology applied was pre and post quasi-experimental for balanced groups. The samples for the study were 4 Subject Experts, 56 students and 3 lecturers from UniKL Malaysia France Institute (UniKL MFI). The students were divided into two groups where 28 students use the Web-based Basic French courseware (treatment group) and 28 students learn Basic French in conventional way (controlled group). In this study, 7 instruments were used to interpret the research problems, needs analysis, courseware evaluation through formative and summative assessments. The findings were analyzed by using SPSS version 11.5 and descriptive and inferential statistics were applied. Findings of the research found that the experiment group (R) that underwent the teaching and learning process using the Basic French Software (EASIFRENCH) had a higher achievement level as compared to the controlled group (K) that followed the conventional approach to teaching and learning. This research contributes to aspects such as: (i) design of the development methodology of the Basic French courseware EASIFRENCH; (ii) design of the instructional design (ID Model) for EASIFRENCH; (iii) development of prototype of the Basic French Courseware EASIFRENCH; (iv) development of modules such as: Tutorials Module, Exercises Module, Communication Module, Activities Module, Links Module and Learn More Module; and (v) findings of the usability test conducted on the Basic French Courseware, EASIFRENCH.

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1. Introduction

Language is the medium or medium of communication among humans. Humans communicate with each other using different languages, and each language is different from others in various forms (from the obvious differences in pronunciation and vocabulary to the difference is not so obvious as in the grammar).

French is a tool to communicate both verbally and in writing as many languages in the world. This language is also an international language used by more than half the world's population. According Hazlina (2008), French is the language of the second power in the world, it is also the official language of the United Nations (UN), one of the official languages for the Olympics, the only language used in the universal postal service, and the main language for the African Nations Union (UAC). It is also a second language is used in Internet communications. In aeronotik engineering, rail transport, food and fashion, it is viewed as an intermediary language skills, technology and modernity. (<http://www.diplomatie.gouv.fr>, March 2003).

The trend of current and future education is focused on the application of Information and Communications Technology (ICT). Use of the Internet has become a catalyst and opened a new dimension in teaching and learning approaches (T&L) because of its ability in providing a variety of sources of information using search engines and directory efficient engine (Sonnenrich 1998). The development of ICT has an impact on the world's best educational pre-school level and tertiary level. The emergence of Internet and web sites, as well as advanced computing facilities and quickly provide many facilities for students and instructors but it's an important thing in education today (Anderson & Elloumi 2004; Hall 2000a; Kramer 2000).

Many people have tried to produce graduate students who are able to master many languages in the face of today's globalized world. Malaysia is no exception in this aspect where the emphasis is given in creating a human resource that can capture a foreign language in driving the knowledge-based economy (k-economy) and is also competitive at the national or international. In today's globalized world foreign language proficiency is no longer seen as an added value, but may become necessary to compete in the arena of politics, security, international trade and education. What's more important is the development of software that takes into account the needs and learning objectives without neglecting aspects of local value or character of the nation.

The importance of speaking foreign languages such as French language is vital in this globalization in which the third language proficiency or a foreign language is no longer an option but it is a necessity. This is also consistent with the objectives of the National Key Result Areas (NKRA), the National IT Council (NITC) and National Information Technology Agenda (as contained in the Malaysian Smart School Roadmap 2005-2020: An Education Odyssey, 2005:23). According to The Smart School Milestones (4 waves), in the fourth wave (2010-2020), will be a key enabler of technology in teaching and learning.

2. Background of The Study

Web-based learning or also known as e-learning can change how a person or organization acquire new skills and knowledge. According Jeurissen (2004), e-learning is defined as the use of innovative technologies and learning models that can be used without the limitations of place or time factors.

DalgarnoinSideket al. (2007) stipulates that the studentscan developtheir knowledge andaccess to variouslearning resourcesthatabound inthe Internetspace. According toSufyan(2001), with theInternet, studentsnowhave accesstolanguageresourceson-line muchlike thenotes, itemdocumentaries, essays, quizzes online, announcements, andvarious otherreferencematerials. Severalstudies on thee-learning showsuse of the Internethas lefta largeand positiveimpactonthose who learn thelanguage.

According to Olivier (2000), the use of internet or web technology in language learning is a new media in teaching and learning languages. Supyan (2001) stated the Computer-Based Language Learning (PBBK) or Computer-Assisted Language Learning (CALL) is not new in education. Most applications are still not widely PBBK in Malaysia and has not been integrated into the national education system.

Teachers who diversify teaching strategies can help students master a variety of linguistic students quickly and effectively. This view is recognized by Graham (1997) in Lessard-Clouston (1997) in which their findings on the SPB in the French language teachers use Language Learning Strategy (LLS) can help the students understand the second language learned better. Therefore, teachers should train students to build and use the DPS, which according to them. In terms of lesson plans, teaching strategy means measures taken by students to accelerate the acquisition, retention, recall and use of information resources (Abu Talib, 1998).

Therefore, this study is to develop software, web-based Basic French and innovative interactive specially developed to meet the standard and requirements of today's students. According to Sufyan and Roziana (2001), interactive features such as repetition, drill and practice, corrections and rewards spontaneously, language learning will be more meaningful and positive impact on teachers and students. Hamzah (2003) and Juriah et al. (2001) supports this statement with spell out the use of computer or Internet technology is able to function and create a conducive environment in T&L.

3.0 Problem of Statements

Problems of this study is shown through a preliminary study conducted on teachers who teach French as well as experience and observation of student researchers who have low grades in French and report students' academic performance on the subject. A study of need analysis was conducted among teachers and students to find the current constraints in the French T&L in a Technical Institutions here. The findings of the preliminary study carried out to show some of the problems or constraints have been identified, among which are: (i) Interest and student motivation is relatively low in learning the French language, (ii) Lack of use of audio-video in teaching and learning the French language, (iii) provisions time is limited, (iv) different learning styles, (v) implement a limited aspect of culture, (vi) use of the Internet or online access is much poorer, (vii) the infrastructure facilities or infrastructure, (viii) The use of the text, (ix) concerns about the recent conduct of teaching equipment, (x) non-student Teaching berpusatkan examination, and (xi) lack of local content.

Findings from the study of the needs analysis, all the teachers agreed with the statement that they are difficult to use the current technology in teaching and learning French. They also agree with the idea of the French language on-line software as an alternative to the problem. Based on some initial findings, the French software development is an important basis for further development to enable T&L carried out without limit of time and place either via the internet (on-line) and not (off-line). This development is important because it provides freedom for students to follow the learning process according to their

capabilities and are free to repeat any part of the subject is not understood in accordance with their needs and their level of understanding.

Pufahl, Christian and Rhodes (2000) has conducted research on policy and practice foreign languages in 19 countries. According to them, the success of a program of foreign language has features as follows: (i) students begin to learn a foreign language from the beginning (early stage), (ii) alignment framework in teaching & learning, (iii) leadership that is efficient and gives importance to language foreign, (iv) the status of foreign language language of priority, (v) the determination of teachers to teach, (vi) integration of foreign language in other subjects, and (vii) the creative use of technology. Public awareness about the importance of foreign language in the economic, social, cultural, science and religion has also contributed to the effectiveness of foreign language curriculum. Many previous studies related to language teaching implementation (delivery system) and whether at the secondary level or in public or private.

For the T&L French in Southeast Asia, Hazlina (2008) also said only a few countries such as Vietnam, Cambodia and Laos, which was occupied by the French nation. Most other Asian countries still have a limited relationship, both geographically and influence of French. In addition to geographical problems, should be submitted also the distinction that separates the linguistic character of the French languages in Southeast Asia; difference is interpreted at various levels, such as aspects of grammar, syntax, and phonetics. That is, the difference is not only appear on the geographical limitations, but it also includes language and cultural logic. It is therefore important in the development process of a software local factor taken into account local values and the more important characters are applied in the development of the nation.

4. Purpose of Study

This study was undertaken aims to develop a software prototype web-based Basic French (multimedia software) for the French subjects at the basic level. It will also involve a web application that offers a wide range of facilities to provide an interactive learning environment, effective and innovative. This study will also assess the characteristics of the French language software prototype basis of some aspects such as pedagogical approach, learning strategies, learning theories, aspects of usability and performance test the effectiveness of the use through the use of French Software Foundation web technology compared with the teaching and learning (T&L) conventional.

4.1 Objective of the Study

To achieve the stated purpose of the study, two main objectives of the study was developed as follows:

- (a) Develop Basic Software French (multimedia software) for web-based Basic French subjects for the students a diploma at an institution of higher learning (IPTS) Tech as a case study. Sub-objective involves the following aspects:

- 1) Identify and design the French language software development methodology for Web-based Basic French Basic subjects for a diploma semester.

2) To design and develop the model ID (design directive) for Software Basic French for one semester of a diploma in Technical Institutions.

(b) To evaluate the software features and effective use of software, web-based Basic French in UniKL Malaysia France Institute (UniKL MFI). Software evaluation and testing the effectiveness of the Basic French software involves the following aspects:

- 1) Identify the basic French language software developed using the approach of tutorials, drills and games in education.
- 2) Identify the basic French language software developed using self-learning strategies, flexible, mastery, cooperative, active and problem-based learning.
- 3) Identify the basic French language software developed based on learning theories such as behaviorism, cognitivism and constructivism.

4.2 Research Questions

To achieve these objectives, several key questions were constructed as follows

- (i) What is the French language software development methodology suitable for use in elementary teaching and learning process for semester one diplomastudent in Technical Institutions?
- (ii) Is the model design directive (instructional model) - ID model suitable for Basic French Software in the process of teaching and learning for students in private institutions semester one Technical diploma?
- (iii) Are the Basic French language website developed using a tutorial approach, drills and games?
- (iv) Are the Basic French software developed applying the self-learning strategies, flexible, mastery, cooperative and active?
- (v) Is the software developed is to apply the learning theories behaviorism, constructivism and cognitivism ?

4.3 Research Framework

In this study, instructional design (instructional design) adapted from a design model ADDIE. ADDIE model which has five main stages of the analysis, design, development, implementation and evaluation. According to Ismail (2002), web-based teaching works not only as an added value, but as a key to the learning needs smart. Sufyan (2001), states are able to integrate multimedia CALL various forms of media and learning theory also supports the use of pictures, graphics, video, and voice to help students understand and remember what is learned the better (Kemp and Smelle 1989). Romiszowski (in Sufyan 2001) states that students can remember about 20% of what they saw, about 30% of what is heard, and about 60% of what is done. Because CALL multimedia software could integrate various forms of media, language learning becomes more interesting, meaningful and productive. This distinction was not found in other teaching aids such as books, audio tapes and video tapes more characteristic of a directional or undirectional. In the French language website development bases, multisensori aspects

(aspects of audio, visual and kinesthetic) concern because it can improve memory (retention time) for a particular topic or subject.

5.0 Research Methodology

Methods using quasi-experimental design of pre-post test for unequal groups. Subjects or respondents is composed of three lecturers of 56 French and one semester of Diploma in Engineering Technology majoring in a Technical Institutions in the district of Hulu Langat. In this study, students will be divided into two separate studies, a total of 28 people will attend the Basic French subjects using a prototype software will be developed (treatment group) while 28 other students from different classes will learn the basic French language in the conventional (control group). In this study, seven instruments will be used for purposes of assessment problems, the analysis of the (identify problems in T&L time), software evaluation is formative and summative CALL. The findings will be analyzed using SPSS software version 11.5 and deskriptif and inferential statistics will be used to answer the research question.

5.1 Population and Sample Survey

Subjects or respondents is composed of three French lecturer, four experts (two experts for the evaluation of aspects of language and two experts for the evaluation of the technical aspects) and a total of 56 students per semester for Diploma in Engineering Technology majoring in a Technical Institutions in the district of Hulu Langat. In this study, students will be divided into two separate studies, a total of 28 people will attend the Basic French subjects using a prototype software developed (treatment group) while 28 other students from different classes will learn the basic French language in the conventional (the control group).

5.2 Procedure and Implementation Study

In the process of developing software Basic French (EASIFRENCH), several phases have been followed by the function are:

- Software requirements analysis process
- The process of designing the software prototype model
- Software development process
- The process of software implementation
- The process of testing and evaluation of some aspects of the use of software.

5.3 Pilot Study

A pilot study was conducted on 15 students to determine the admissibility and validity of all items in the questionnaire used in this study. Although a number of constructs adapted from several of the past, but it is tested once again to test the reliability of the data items in a checklist or questionnaire. Internal consistency of the method used in this pilot study was Cronbach Alpha method in which this method can be used for all types of data (Norazah 2002). Here are the results of the reliability index of pilot studies carried out.

5.4 Research Instruments

According to Mohd.MajidKonting(2004), the research instrument is essential to achieve the objectives of the study and it is a measuring instrument used to measure the variables under study. According to her, a good measuring instrument to measure accurately a variable to be measured. In this study a number of studies have used instruments. Among them is the direct observation of student researchers who use this software, unstructured interviews with lecturers and several sets of questionnaires which include questions about the background of the respondents, the objective of teaching and learning, easy to use software, multimedia features, design issues form of teaching, screen design (user interface) and so on. Sets of this questionnaire is used for the continuous assessment evaluation of the prototype developed.

6.0 Findings

Q1: What is the French language software development methodology suitable for use in elementary teaching and learning process for one semester diploma in Technical Institutions?

From the study, researcher has found that the development of basic French language software has been applied pedagogical approaches, theories, appropriate learning strategies in R & D for one semester. The findings show the design aspects, the aspects of interactivity, content organization and integration of multimedia elements enhance the development of this software.

Q2: What model design directive (instructional model)-ID model suitable for Basic French Software in the process of teaching and learning for students in private institutions semester one Technical diploma?

From the study of the directive design (conceptual model) and the modules produced (as described in chapter 3), software development was developed based on the following aspects;

- Basic French teaching approaches
- Instructional design for teaching language
- holistic development of students
- The modules planned T & L process that integrates the elements of interactive multimedia.

ADDIE model has been selected and found suitable for the model instructional design (ID model)

Q3: Are the Basic French language website developed using a tutorial approach, educational drills and games?

The findings showed that that 82.1% of respondents agreed (23 respondents) and 17.5% (5 respondents) did not agree that this basic French language software approach drill and practice and educational games. For a tutorial approach, the 85.7% (24 respondents) agreed and 14.3% (4 respondents) disagreed Basic French software uses a tutorial-based pedagogical approaches. The findings of this study is important in particular for teachers in using the right approach, especially in web-based teaching and learning. This finding is supported by Juriah et al. (2001) and Azmeela (2003). This finding also supports the study of Collin (2001), Carol (2003) and Humprey (in Nor Rasimah 2007) which states the student will get better results by doing the drill and practice, repeating the process intensively and increasing training and strengthening. Therefore, the tutorial, drill and practice and educational games are seen the right approach in teaching and learning on the web.

Q4: Are the Basic French software developed applying the self-learning strategies, flexible, mastery, cooperative and active?

The study showed that 100% (28 respondents) agreed that this basic French language software to apply the self-learning strategies, flexible, and cooperative control. For active learning strategies, 96.7% (27 respondents) and 3.3% (1 respondent) does not. According to Ismail (2002), teachers must strive to diversify the approach towards optimizing the potential of the students in mastering the skills and knowledge in their learning. This finding is important because appropriate learning strategies will yield results or better results that needs to be achieved by students. Most of the respondents agree that this basic French language software has applied active learning strategies.

Q5: Is the software developed to apply the learning theories such as behaviorism, and constructivism and cognitivism?

The study showed that 100% (28 respondents) agreed that this basic French language software has applied the learning theories such as behaviorism, constructivism and cognitivism. According to Alessi and Trollip (2001), students who participate in behavioral learning will always give a positive response because this approach focuses on students' behavior changes as a result of the response or stimulus that is in the process of R & D. Baharuddin et al. (2002) also stated this approach (web-based approach) make students more clear about their goals and respond towards the achievement of better result in teaching & learning. This finding is also consistent with Mohamed Amin and Afendi (2005) and the proposed framework for the development of language-based software on-line. Afendi and Mohamed Amin (2009), stated that the application of these theories (in teaching & learning foreign language) is seen to assist in student achievement.

7.0 Conclusion

This study has successfully developed Basic French software (EASIFRENCH) by integrating web-based pedagogical approaches such as tutorials, drills and practice and educational games. This software development strengthened further by applying learning theories such as theories of behaviorism, cognitivism and constructivism. Some learning strategies such as independent learning strategies, flexible, mastery, cooperative and active learning also successfully applied in the development of this software. With the conceptual model based on characteristics such as language teaching approach, holistic development of students, a systematic and planned modules, chain of inter-related modules with each other and approach has made development multisensori EASIFRENCH software is unique and distinctive. By integrating elements of interactive multimedia, software development has been successful in increasing student achievement as being obtained from pre and post test conducted by two research groups have used two different methods of learning this basic French software.

Finally EASIFRENCH software is hopefully can motivate the teaching staff in developing web-based teaching material. This study also found that the approach (online learning) change the method of teaching and learning in enabling and enhancing the participation and achievement of students. This study is also expected to contribute in enriching the collection of teaching materials, especially in R & D Basic French language as well as to assist the interested parties (stakeholders) in planning and managing design (framework) for teaching & learning in the future. This finding is also in line with the Malaysian Smart School Road Map 2005 - 2020: An Educational Odyssey - who expect the fourth wave (2010-2020) will

focus on strengthening the teaching materials and technology as a facilitator (enabler) in the process of teaching and learning.

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